

## REMARKS

Applicants appreciate the thorough examination of the present application as evidenced by the Office Action of September 26, 2007. Applicants have amended independent Claims 1, 10, 18 and 26 to include the recitations of dependent Claims 2, 11, 19 and 27, respectively, and have cancelled dependent Claims 2, 11, 19 and 27 from the present application without prejudice or disclaimer. Dependencies of the dependent claims have also been amended to conform to the cancellation of dependent Claims 2, 11, 19 and 27. Applicants have also amended dependent Claims 3, 6, 12, 15, 20, 23, 28 and 31 to correct inadvertent typographical errors therein. Accordingly, Applicants respectfully submit that the pending claims are patentable over the cited references for at least the reasons discussed herein.

### The Claim Objections

The Office Action objects to Claim 3 for the duplication of the phrase "to the." *See* Office Action, page 2. Applicants have amended Claim 3 to remove the duplicate phrase "to the" as set out above. Furthermore, Applicants have also amended dependent Claims 6, 12, 15, 20, 23, 28 and 31 to correct similar typographical errors therein. Accordingly, Applicants respectfully submit that the objection with respect to Claim 3 has been obviated for at least the reasons discussed herein.

### The Section 103 Rejections

A. Claims 1-5, 9-14, 18-22 and 26-30 stand rejected under 35 USC 103(a) as being unpatentable over the publication "DSL Evolution-Architecture Requirements for the Support of QoS-Enabled IP Services," Working Text: WT-081, Straw Ballot Revision (8) (March 2003) (hereinafter "DSL Forum") in view of United States Patent No. 7,073,055 to Freed (hereinafter "Freed"). *See* Office Action, page 2. Applicants respectfully submit that many of the recitations of the claims are neither disclosed nor suggested by the cited combination. For example, amended Claim 1 recites:

A method of managing Quality of Service (QoS) and/or bandwidth allocation in a Regional/Access Network (RAN) having a broadband access server (BRAS) that provides end-to-end transport between a Network Service Provider (NSP) and/or an

Application Service Provider (ASP), and a Customer Premises Network (CPN) that includes a Routing Gateway (RG), comprising:

receiving at the RAN, a service session request from the NSP and/or the ASP including a request to establish or terminate a communication session, the NSP and/or ASP being associated with a service provider record;

authenticating the NSP and/or the ASP based on information contained in the service provider record to provide an authentication result or a termination result; and

transmitting from the RAN, the authentication result or the termination result to the NSP and/or ASP,

wherein the RAN comprises a digital subscriber link (DSL) network;

wherein the DSL network further includes a Network Interface Protocol Handler, a DSL Service Manager, and a DSL Session Data Store; and

wherein receiving a service session request from the NSP and/or the ASP comprises receiving the service session request at the Network Interface Protocol Handler.

Amended independent Claims 10, 18 and 26 contain similar recitations to the highlighted recitations of amended Claim 1. Applicants respectfully submit that at least the highlighted recitations of Claim 1 are neither disclosed nor suggested by the cited combination for at least the reasons discussed herein.

The Office Action admits that the DSL Forum does not explicitly indicate the receiving authenticating and transmitting recitations of Claim 1. However, the Office Action points to Freed as providing the missing teachings. *See* Office Action, page 3. In particular, the Office Action states that Freed teaches a Service network (Abstract) that includes a DSL connection..." *See* Office Action, page 3. In fact, Freed discusses the use of cable television services to connect to the internet, not DSL. *See* Figure 1 of Freed, cable modem system. The Background of Freed even portrays DSL as less desirable than cable. *See* Freed, column 1, lines 35-46. Furthermore, the cited portions of Freed discuss a remote authentication dial-in user service (RADIUS) that provides a means that allows Internet Service Providers to authenticate a user and then return all configuration information necessary for the Internet Service Provider to provide network services to the user. *See* Freed, column 3, lines 21-25.

In stark contrast, Claim 1 recites a method of managing QoS and/or bandwidth allocation in a RAN (DSL network) that is configured to receive, authenticate and transmit as recited in Claim 1. As discussed above, Freed discusses a cable system, so by definition, Freed does not discuss receiving and authenticating at and transmitting from the DSL

network. In particular, nothing in Freed discloses or suggests authenticating the NSP and/or the ASP based on information contained in the service provider record to provide an authentication result or a termination result; transmitting from the RAN, the authentication result or the termination result to the NSP and/or ASP, the DSL network including a Network Interface Protocol Handler, a DSL Service Manager, and a DSL Session Data Store and wherein receiving a service session request from the NSP and/or the ASP comprises receiving the service session request at the Network Interface Protocol Handler as recited in Claim 1. Accordingly, amended Claim 1 and the claims that depend therefrom are patentable over the cited combination for at least the reasons discussed herein.

Furthermore, nothing in the DSL Forum and/or Freed discloses or suggests the request to terminate or the termination request as recited in Claim 1. In fact, the Office Action admits that the DSL Forum and Freed lack these teachings. *See* Office Action, page 7. Accordingly, Applicants respectfully submit that amended independent Claim 1 is patentable over the cited combination for at least these additional reasons.

Applicants further submit that one of skill in the art would not be motivated to combine the cited references as suggested in the Office Action. The DSL Forum discusses the DSL standard and details thereof. Freed, on the other hand, discusses a cable system. As discussed above, the background of Freed implies that the bandwidths provided by DSL are inferior to cable. One of skill in the art would not be motivated to combine the teachings found in the DSL Forum with the cable reference of Freed as suggested in the Office Action for at least these reasons.

Accordingly, Applicants respectfully submit that amended independent Claims 1, 10, 18 and 26 and the claims that depend therefrom are patentable over the cited combination for at least the reasons discussed above.

As discussed above, the dependent claims are patentable over the cited combination at least per the patentability of the independent base claims from which they depend. However, many of the dependent claims are also separately patentable. For example, dependent Claim 3 recites, in part:

wherein the service session request comprises an establish service session request and wherein authenticating further comprises:  
forwarding **from the Protocol Handler**, the establish service session request to **the DSL service manager**;

querying from the DSL service manager, the DSL Session Data Store to obtain the service provider record based on a service provider identifier;  
validating at the DSL service manager, service provider credentials in the obtained service provider record; and  
generating the authentication result responsive to the validation of the service provider credentials.

Dependent Claims 12, 20 and 28 contain similar recitations. Applicants respectfully submit that many of the recitations of Claims 3, 12, 20 and 28 are neither disclosed nor suggested by the cited combination. In particular, the Office Action admits that the DSL Forum does not teach the recitations of Claims 3, 12, 20 and 28, but points to Freed as providing the missing teachings. *See* Office Action, page 4. As illustrated by the highlighted recitations of Claim 3 set out above, the recitations of Claim 3 recite specific aspects of a DSL system, for example, protocol handler, DSL service manager and the like. As discussed above with respect to the independent claims, Freed discusses a cable system and teaches away from a DSL system. Accordingly, Applicants submit that dependent Claims 3, 12, 20 and 28 are separately patentable for at least the additional reasons discussed herein.

Similarly, the Office Action points to Freed as providing the teachings of dependent Claims 4, 5, 13, 14, 21, 22, 29 and 30. *See* Office Action, pages 5-6. Applicants respectfully submit that dependent Claims 4, 5, 13, 14, 21, 22, 29 and 30 are separately patentable for at least the similar reasons to those discussed above with respect to Claims 3, 12, 20 and 28.

B. Claims 6-8, 15-17, 23-25 and 31-33 stand rejected under 35 USC 103(a) as being unpatentable over the DSL Forum in view of Freed and in further view of United States Patent No. 6,792,457 to Zhang (hereinafter "Zhang"). *See* Office Action, page 7. As discussed above, the dependent claims are patentable over the cited combination at least per the patentability of the independent base claims from which they depend. However, many of the dependent claims are also separately patentable.

For example, dependent Claims 6-8, 15-17, 23-25 and 31-33 recite details of the termination of a session according to some embodiments of the present invention. The Office Action admits that these teachings are absent from the DSL Forum and Freed, but points to Zhang as providing the missing teachings. *See* Office Action, pages 7-8. Applicants respectfully disagree.

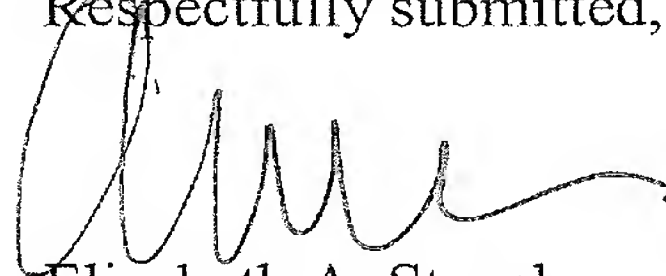
In particular, Zhang discusses methods and systems that allow ISPs to provide detailed billing information. *See* Zhang, column 2, lines 15-18. As discussed above, dependent Claims 6-8, 15-17, 23-25 and 31-33 recite details of the termination of a session in a DSL system and specifically recite components of the DSL system involved, for example, DSL service manager, the DSL Session Data Store and the like. Nothing in Zhang discloses or suggests these specific recitations of the dependent claims.

Applicants further submit that one of skill in the art would not be motivated to combine the cited references as suggested in the Office Action. The DSL Forum discusses the DSL standard and details thereof, Freed discusses a cable system and Zhang discusses methods and systems that capture information for accounting purposes (Zhang Abstract). One of skill in the art would not be motivated to combine the teachings found in the DSL Forum, Freed and Zhang as suggested in the Office Action, unless Applicants disclosure was used as a road map for the combination. Accordingly, Applicants respectfully submit that dependent Claims 6-8, 15-17, 23-25 and 31-33 are separately patentable over the cited referenced for at least the additional reasons discussed herein.

### CONCLUSION

Applicants respectfully request withdrawal of all objections and rejections and the allowance of all claims in due course. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

Respectfully submitted,



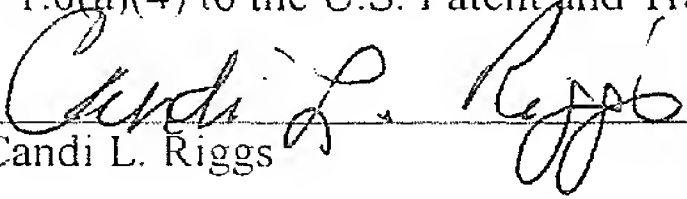
Elizabeth A. Stanek  
Registration No. 48,568  
Attorney for Applicants

**Customer Number 39072**  
Myers Bigel Sibley & Sajovec, P.A.  
P.O. Box 37428  
Raleigh, NC 27627  
919-854-1400  
919-854-1401 (Fax)

In re: Maria Adamczyk *et al.*  
Serial No.: 10/716,967  
Filed: November 19, 2003  
Page 16 of 16

**CERTIFICATION OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on December 20, 2007.

  
Candi L. Riggs